

AMENDMENT UNDER 37 C.F.R. § 1.116

In the claims:

1. (Previously amended) Method for separating difluoromethane from a mixture of said difluoromethane and at least one impurity, said method comprising the steps of:
extractively distilling said mixture using dichloromethane as an extractive agent to
produce an overhead stream of purified difluoromethane having a
concentration of said at least one impurity lower than that of said mixture, and
at least one extractive agent stream comprising a mixture of said at least one
impurity and dichloromethane; and
supplying at least a portion of said extractive agent stream to a fluorination reaction
which produces said difluoromethane.
2. (Cancelled)
3. (Previously amended) The method of claim 1, wherein said at least one extractive agent stream comprises a side stream and a bottoms stream, said side stream comprising a mixture of dichloromethane and said at least one impurity, said bottoms stream comprising dichloromethane and a concentration of said at least one impurity less than that of said side stream, and wherein step of supplying at least a portion of said extractive agent stream to a fluorination comprises supplying at least a portion of said side stream to said fluorination reaction.
4. (Currently amended) The method of claim 1, wherein said at least one impurity is a chlorinated impurity having the formula:
$$\text{CH}_w\text{Cl}_y\text{X}_z$$

wherein each X is an independently selected halogen, $y \geq 1$ and $w+y+z=4$.
5. (Original) The method of claim 4, wherein X is fluorine.